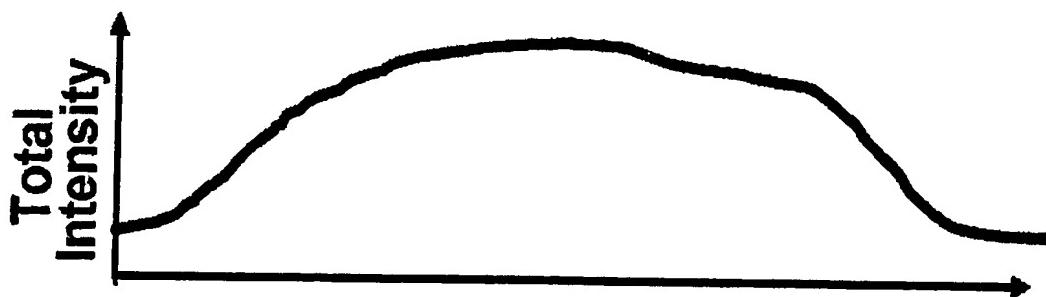


FIG. 1A

BURST PROFILE



EXCITATION PROFILE

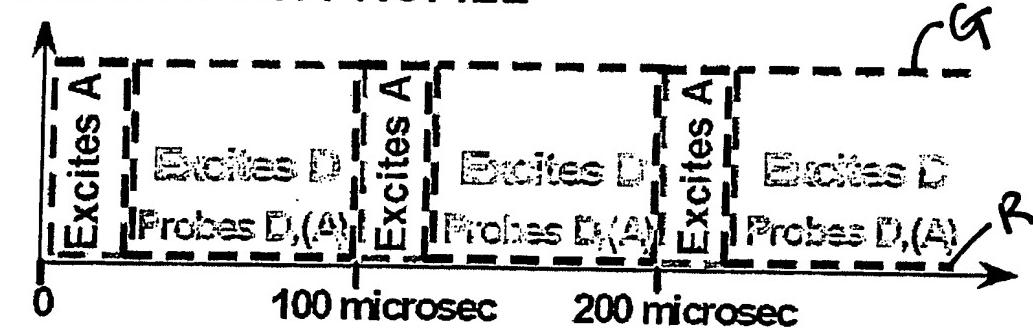


FIG. 1B
EMISSION PROFILES

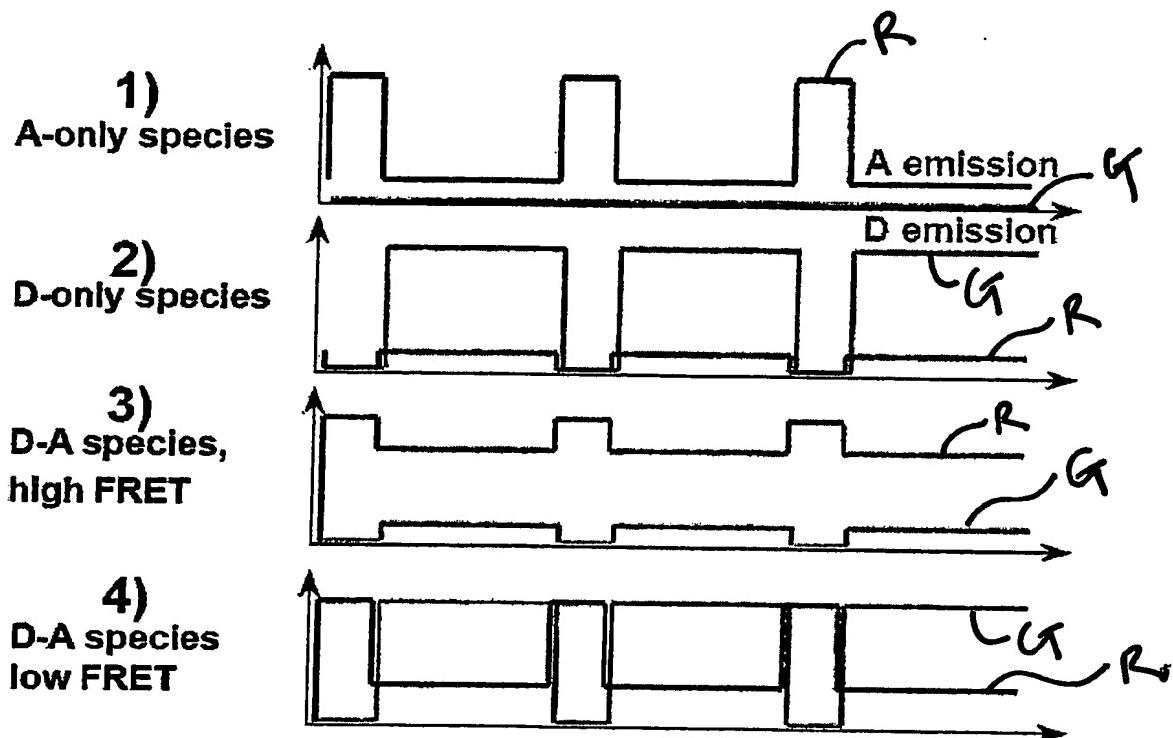


FIG. 1C

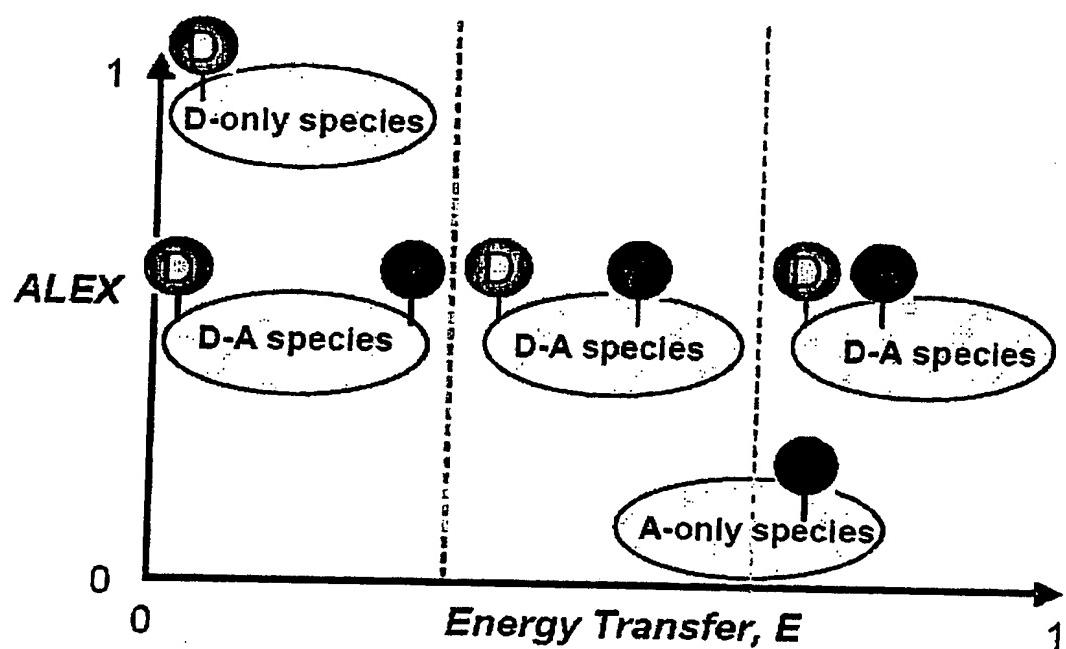
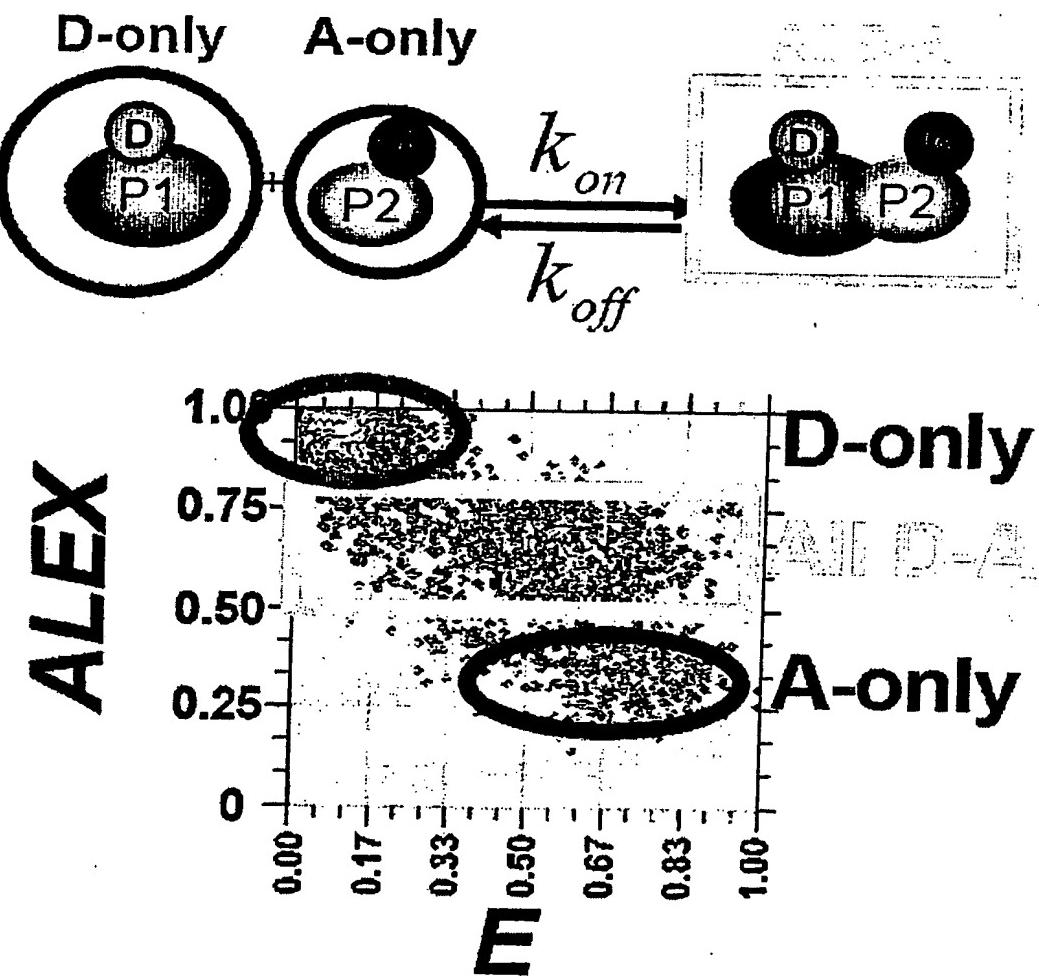


FIG. 2



$$K_a = \frac{k_{on}}{k_{off}} = \frac{[P_1 P_2]}{[P_1][P_2]} \quad K_a = \frac{[P_1^D P_2^A]}{[P_1^D][P_2^A]}$$

FIG. 3

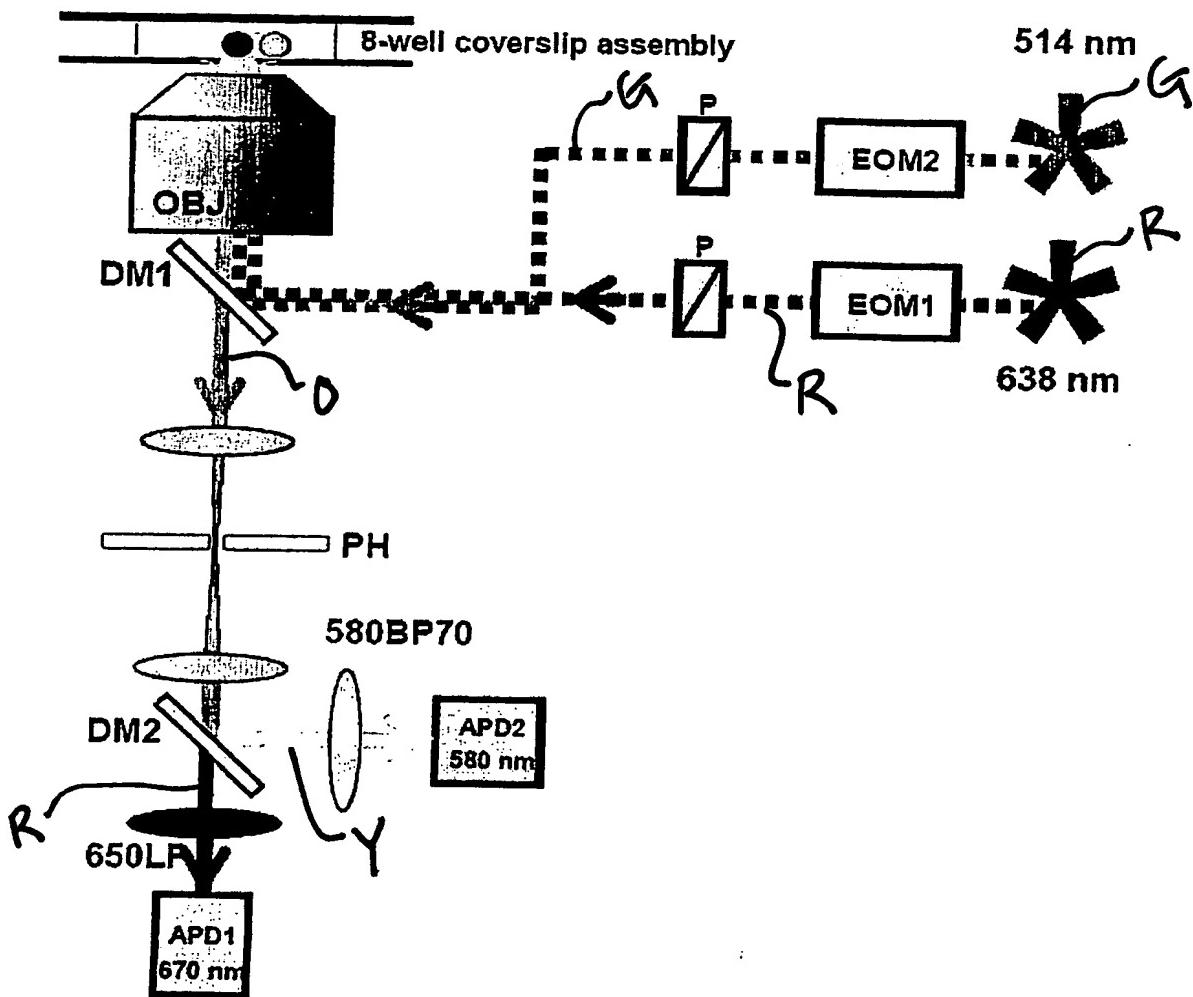


FIG. 4

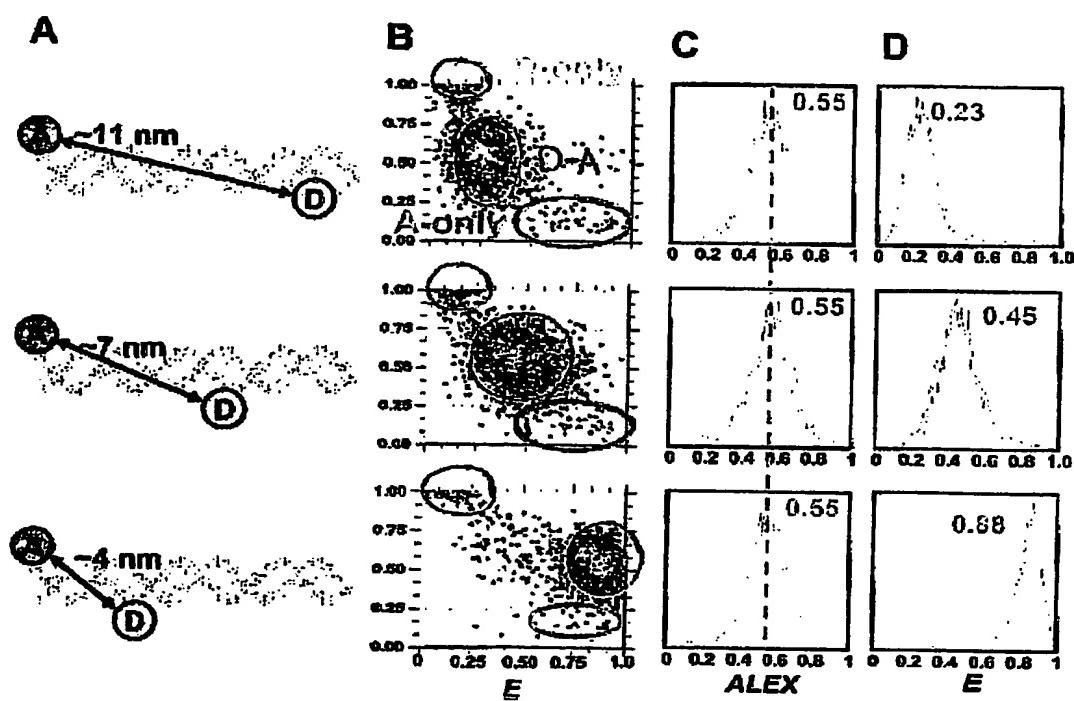


FIG. 5

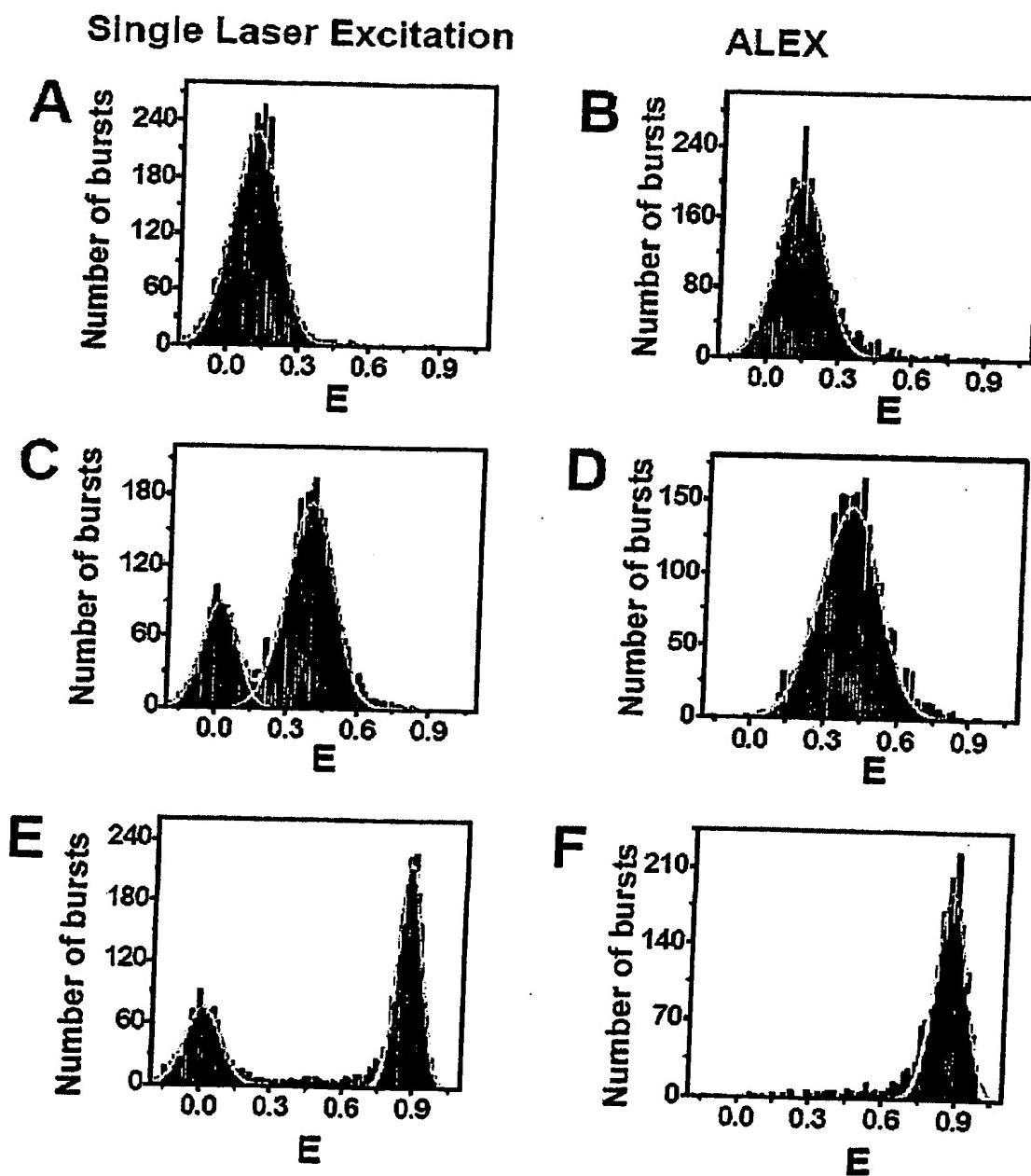


FIG. 6

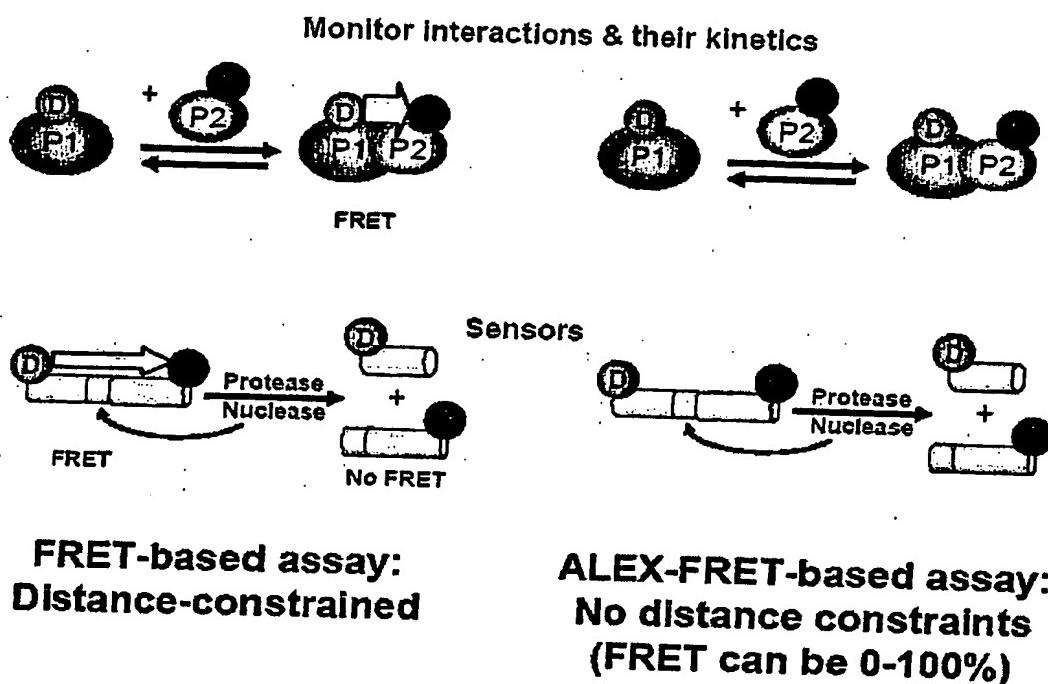


FIG. 7

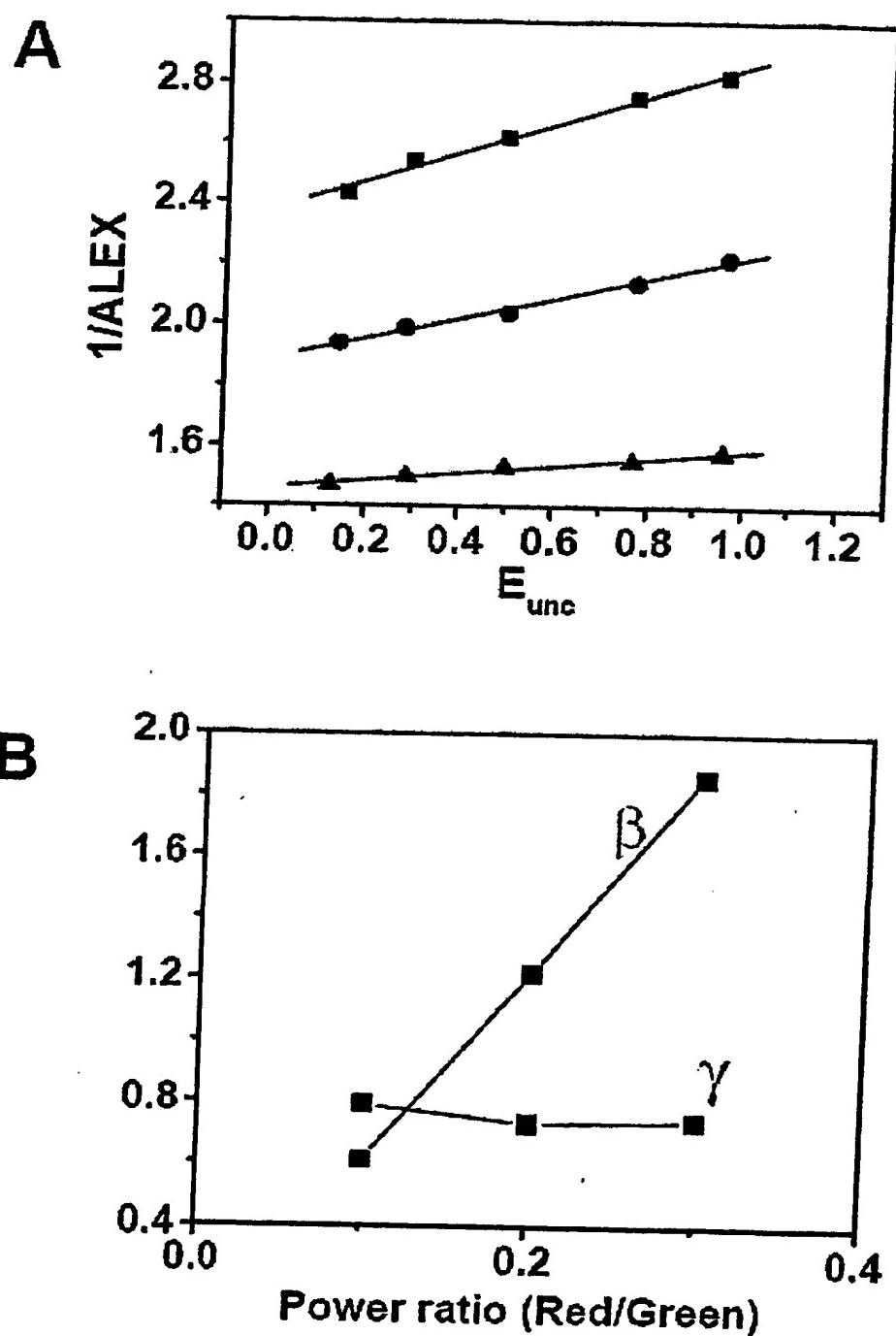


FIG. 8

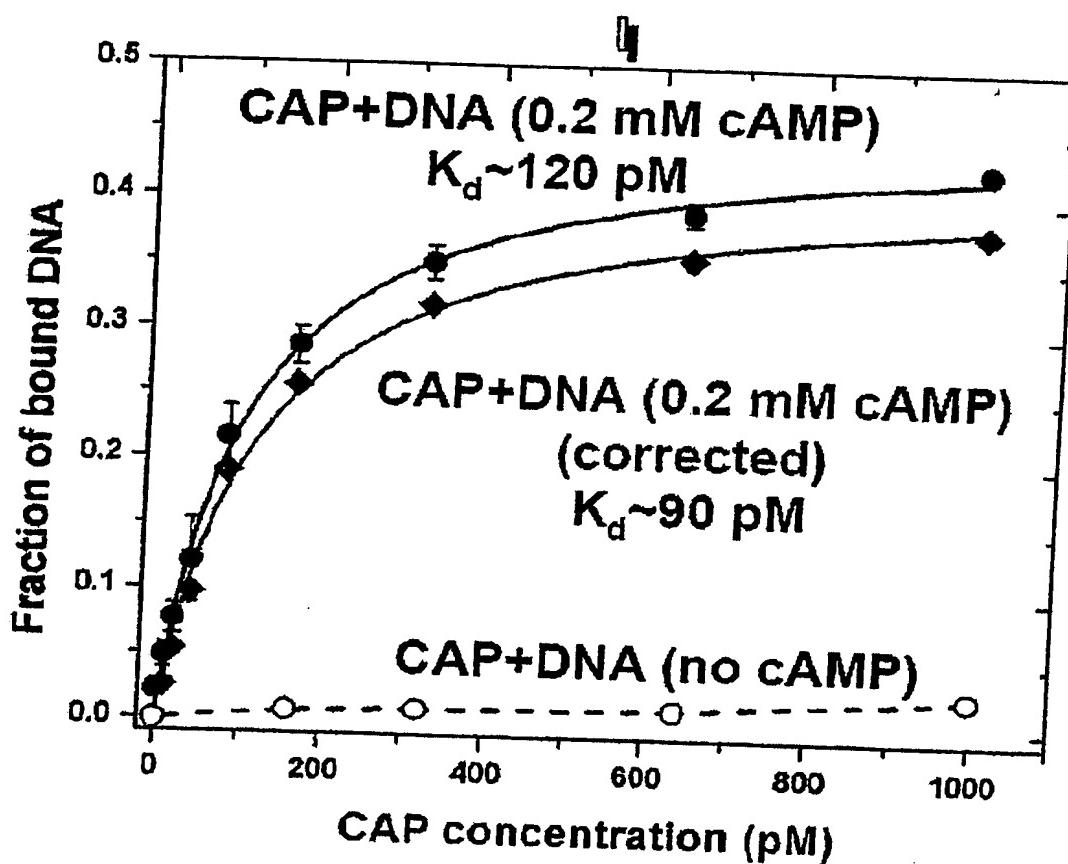


FIG. 9

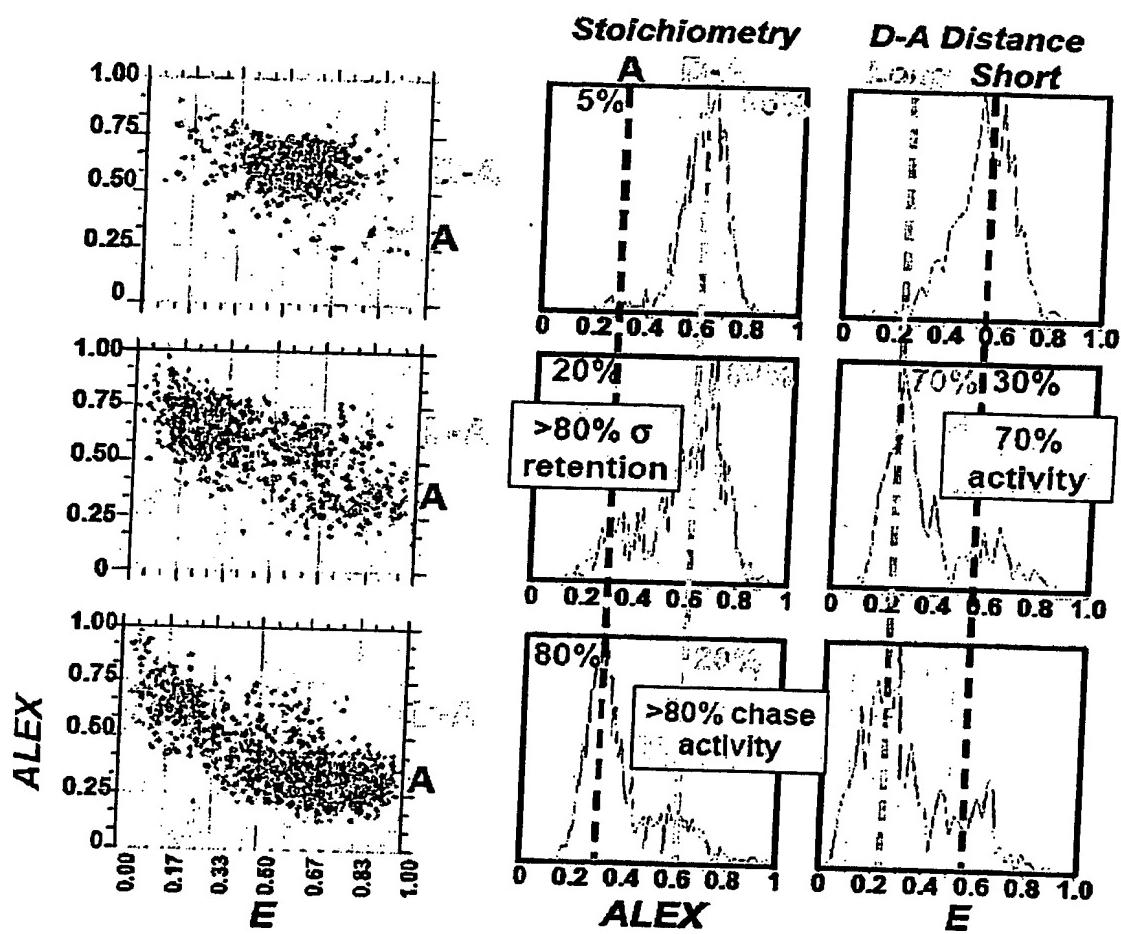


FIG. 10

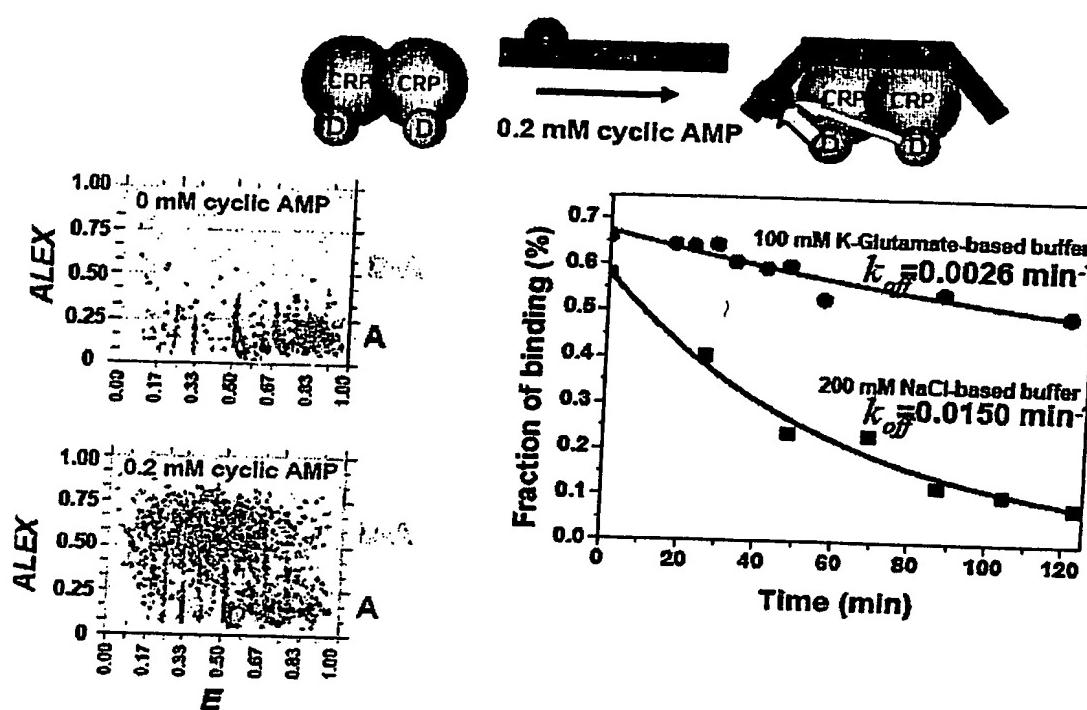


FIG. 11

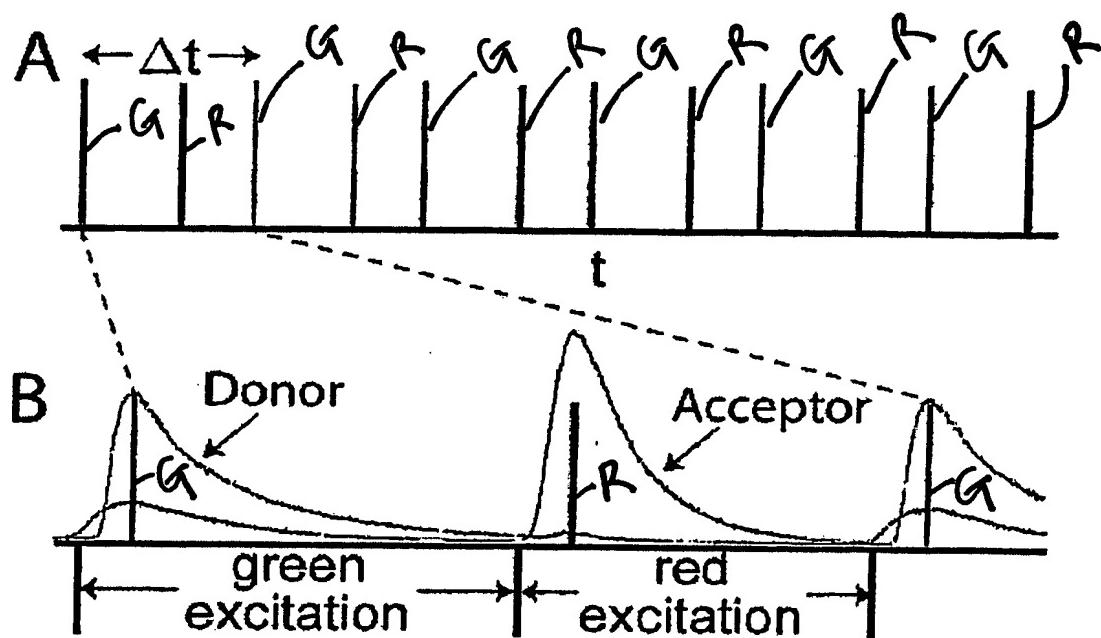


FIG. 12

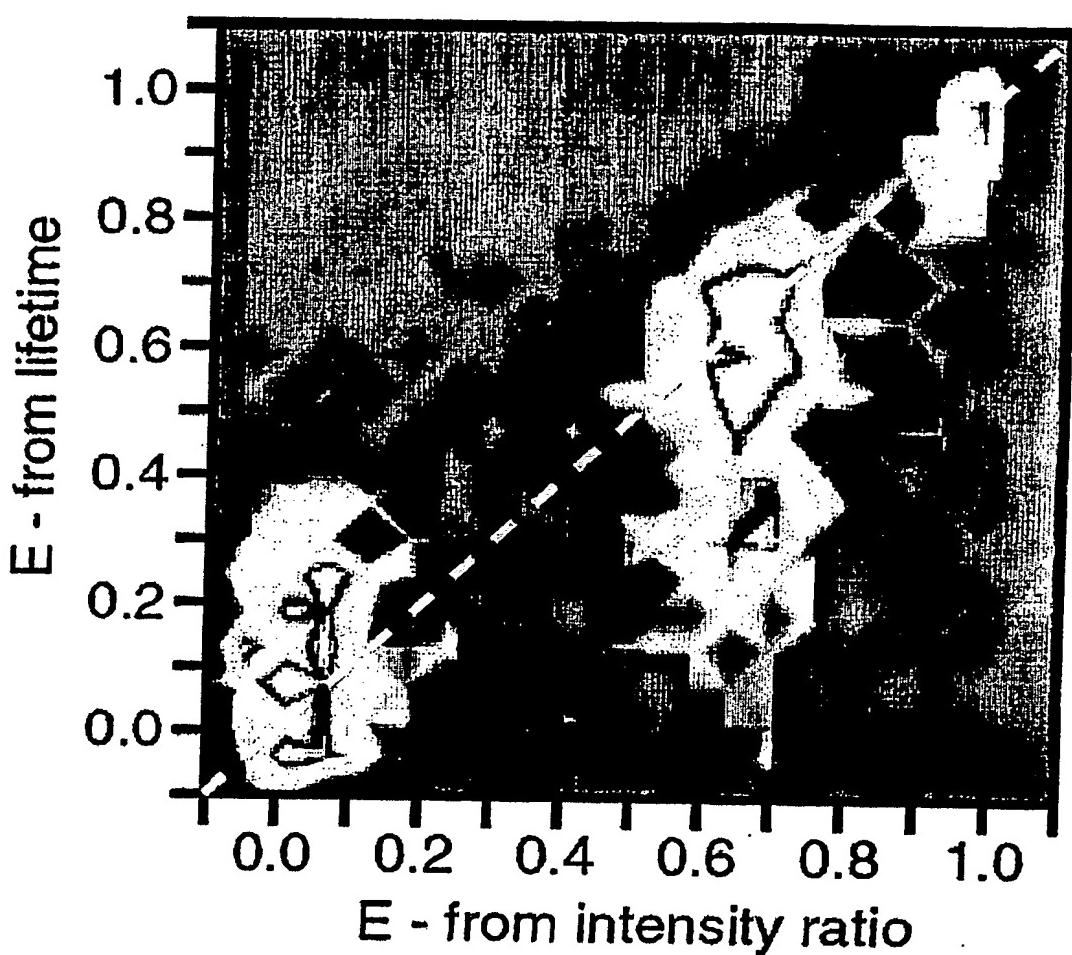


FIG. 13

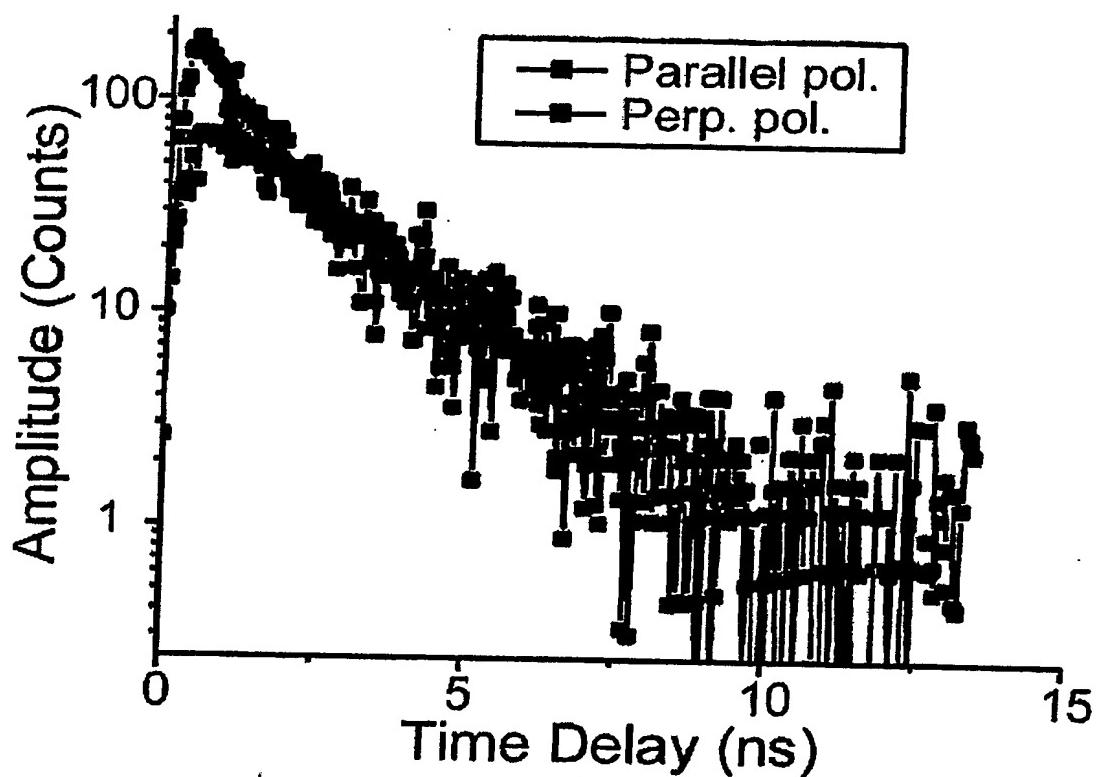


FIG. 14

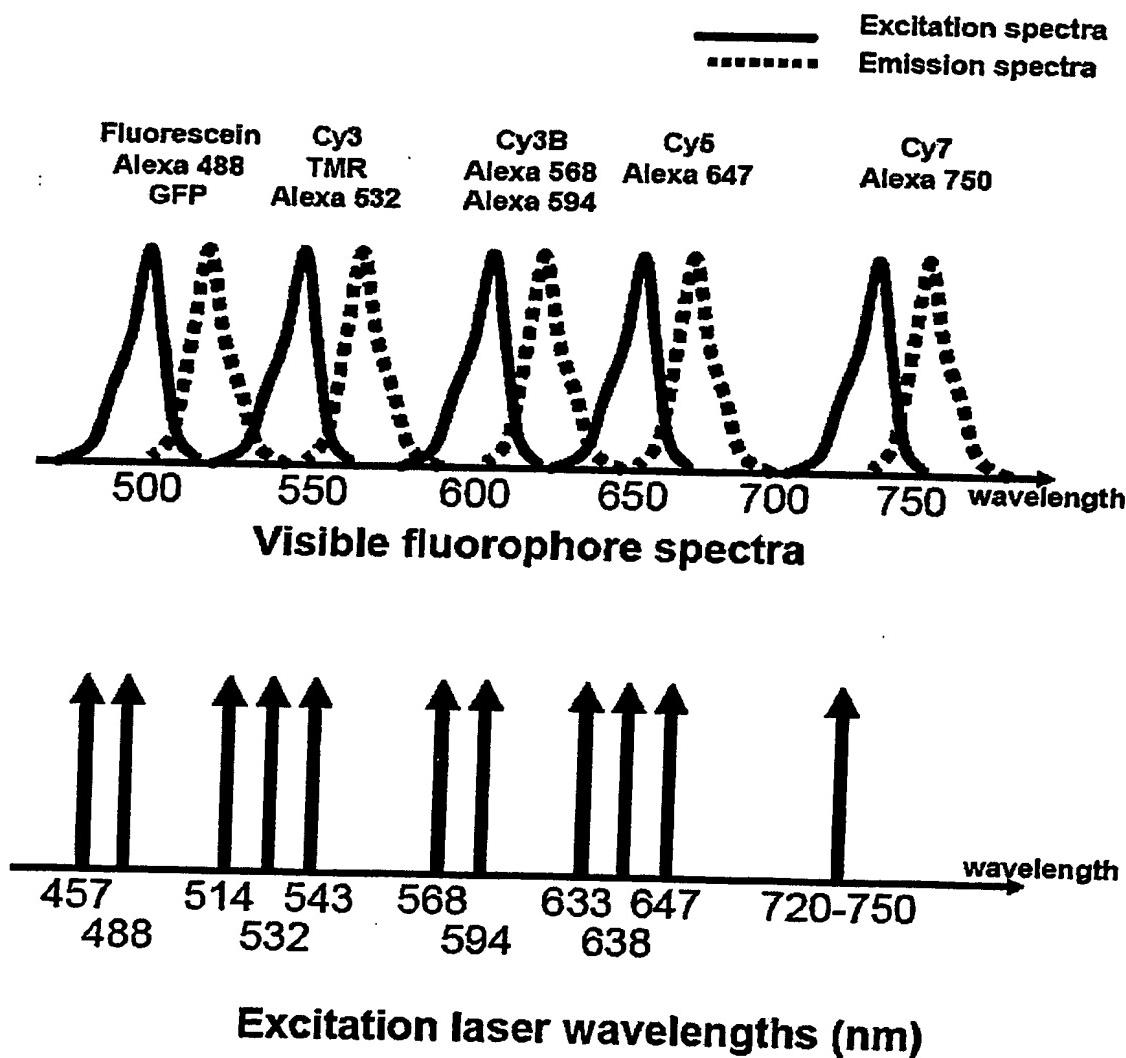
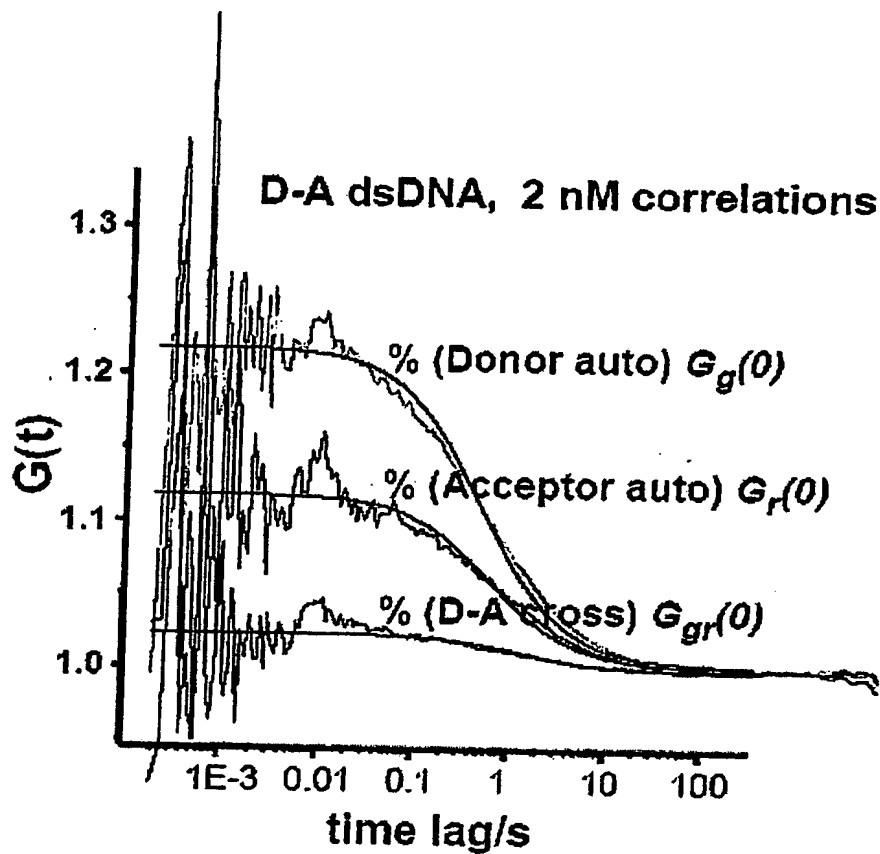


FIG. 15



a) Normalized Subpopulation Concentrations $Y_D + Y_A + Y_{DA} = 1$

$$G_g(0) = \frac{1}{N_{total}} \cdot \frac{Y_D + Y_{DA}(1-E)^2}{[Y_D + Y_{DA}(1-E)]^2}$$

$$G_r(0) = \frac{1}{N_{total}} \cdot \frac{Y_{DA}E^2k^2 + Y_A}{(Y_{DA}Ek + Y_A)^2}$$

$$G_{gr}(0) = \frac{1}{N_{total}} \cdot \frac{Y_{DA}(1-E)Ek}{[Y_D + Y_{DA}(1-E)][Y_{DA}Ek + Y_A]}$$